

Patent Application
Docket No. 34645-00523USPT
Ericsson No. P13987-US2

REMARKS

This Amendment is submitted in reply to the Office Action dated November 3, 2004. Applicants respectfully request reconsideration and further examination of the patent application under 37 C.F.R. § 1.111.

Upon entry of the foregoing Amendment, Claims 1, 4-6 and 11-19 are pending in the application. The amendments are believed to introduce no new matter, and their entry is respectfully requested. Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider and withdraw all outstanding rejections.

Summary of the Examiner's Objections and Rejections

Claim 1 was provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 2 and 5 of copending U.S. Patent Application No. 09/814,434.

Claims 1-19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Carr (US 5,293,379) in view of Le (US 6,300,887).

Claim 6 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Summary of Amendment

Applicants have canceled without prejudice Claims 2-3 and 7-10, and amended Claims 1, 4-6, 11-12, 14 and 16-18 to more particularly define the present invention. Also, Applicants have amended the first paragraph of the specification to replace the Attorney Dockets Nos. with Serial Nos.

Remarks Regarding Double Patenting Rejection

Claim 1 was provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1, 2 and 5 of copending U.S. Patent Application No. 09/814,434. Applicants have amended independent Claim 1 so it is substantially different than the claims recited in copending U.S. Patent Application No. 09/814,434. As such, Applicants respectfully request removal of the obviousness-type double patenting rejection.

Remarks Regarding Objected Claim 6

Claim 6 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants have rewritten Claim 6 to include the limitations of original independent Claim 1 and original dependent Claim 6. In addition, Applicants have amended the new independent Claim 6 to correct a couple of

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errors that were present in the original dependent Claim 6. In view of the foregoing, Applicants respectfully request allowance of the amended independent Claim 6.

Remarks regarding § 103(a) rejections

Applicants respectfully submit that amended independent Claims 1, 11 and 17 are patentable over Le and/or Carr. The claimed invention as recited in amended independent Claims 1, 11 and 17 follows:

1. A method of facilitating compressed message communication between a first communication entity and a second communication entity, said method comprising the steps of:
compressing, at said first communication entity, a portion of a first communication message using a first dictionary to produce a first compressed communication message;
transmitting said first compressed communication message to said second communication entity;
receiving said first compressed communication message at said second communication entity;
decompressing, at said second communication entity, said first compressed communication message using a second dictionary to reproduce said first communication message;
adding said portion of said first communication message to said second dictionary;
compressing, at said second communication entity, a portion of a second communication message using said second dictionary to produce a second compressed communication message;
transmitting said second compressed communication message to said first communication entity;
receiving said second compressed communication message at said first communication entity;
in response to receiving said second compressed communication message, adding said portion of said first communication message to said first dictionary; and
decompressing, at said first communication entity, said second compressed communication message using said first dictionary to reproduce said second communication message; and
adding said portion of said second communication message to said first dictionary (emphasis on main distinguishing limitation).

11. A communications device, comprising:
a receiver unit;
a transmitter unit;
a processor; and
memory having stored therein at least one dictionary and program software having instructions which, when executed by the processor, causes the communications device to:
compress, using said at least one dictionary, a portion of a communication message to obtain a compressed portion thereof;
transmit, by said transmitter unit, said communication message having the compressed portion to a second communications device; and
add the compressed portion of said communication message to said at least one dictionary after receiving a reply communication message sent by the second communication device to said receiver unit (emphasis on main distinguishing limitation).

17. A communication system for facilitating compressed message communication, said communication system comprising:
a first communication entity for sending a first communication message, said first communication entity comprising:
a first dictionary;

a first compressor, in communication with said first dictionary, said first compressor using said first dictionary to compress a portion of a first communication message to produce a first compressed communication message;

a first transmitting means, in communication with said first compressor, for transmitting said first compressed communication message to a second communication entity;

a first decompressor;

a first updating means, in communication with said first decompressor and said first dictionary, for adding said portion of said first communication message to said first dictionary after said first communication entity receives a reply message sent by the second communication entity in response to receiving the first compressed communication message; and

said second communication entity comprising:

a first receiving means for receiving said first compressed communication message;

a second dictionary;

a second decompressor, in communication with said first receiving means and said second dictionary, for decompressing said first compressed communication message using said second dictionary to reproduce said first communication message; and

a second updating means, in communication with said second decompressor and said second dictionary, for updating said portion of said first communication message to said second dictionary (emphasis on main distinguishing limitation).

The teachings of Le and/or Carr differ significantly from the present invention as recited in independent Claims 1, 11 and 17. The amended independent Claim 1 recites a limitation where a first communication entity compresses a portion of a first communication message using a first dictionary to produce a first compressed communication message and then another limitation is recited where the first communication entity waits until it receives a second compressed communication message from a second communication entity before adding the portion of the first communication message to the first dictionary. These claimed limitations where the first communication entity waits to update a first dictionary with a sent message (e.g., portion of the first communication message) until after a reply message (e.g., second compressed communication message) arrives from a second communication entity are not taught by Le and/or Carr. Instead, Le teaches:

The present invention transfers the compression and decompression context information used for compression and decompression of the headers of packets to enable the seamless relocation of compression/decompression functions from a first old network entity (ANI_AD) to a second new network entity (ANI_AD), i.e. the entity seamlessly continues compression and decompression where the first network entity (ANI_AD) stopped. The invention is applicable to, but is not limited to IP/UDP/RTP header compression.

In a first embodiment of the invention, relocation is concurrent with radio handoff... For the uplink traffic, the first network entity takes a snapshot of its current compression context information and sends the value thereof or a representation of the context information to the mobile compressor. the mobile compressor derives the in synchronism compression context information from the received information, saves it for subsequent use and returns an acknowledgment to the first network entity... (emphasis added) (see col. 3, line 55 through col. 4, line 22).

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This scenario and similar scenarios are mentioned several times within Le. As can be seen, Le does not teach where the first communication entity waits to update a first dictionary with a sent message (e.g., portion of the first communication message) until after a reply message (e.g., second compressed communication message) arrives from a second communication entity (see exact terminology recited in independent Claims 1, 11 and 17). Instead, Le appears to teach where the first network entity has already stored the context information before it takes a snapshot of this context information and sends it to the second network entity without waiting to receive an acknowledgement message from the second network entity before storing the context information.

Carr does not cure this defect. Because, Carr teaches the following:

Referring first to FIG. 1, a pair of LAN's A and B are shown, one located in Boston and one in Ottawa. Each LAN has attached thereto, various devices which are well known in the art. As aforesaid, there is little or no need for data compression within each of LANs A or B. On the other hand, when data is to be transmitted from LAN A to LAN B, it will first pass through LANBRIDGE 10, where the packet data appearing on LAN A is compressed in accordance with the invention. Such encoded data is then transmitted by modem 12 over WAN link 14 to modem 16. The received data is decompressed by LANBRIDGE 18, and the packet structures appearing at the input to LANBRIDGE 10 are reconstructed and emplaced on LAN B (see col. 4, lines 19-32).

As is known to those skilled in the art, the LANBRIDGE at the receiving end of the wide area network will receive the above-noted codes and will proceed to find the matching string within its own duplicate of the header dictionary table. In addition, it too will update its header table with the entire static header string, as did the transmitting end LANBRIDGE, so as to enable efficient decoding of encoded data (emphasis added) (see col. 8, lines 44-51).

As can be seen, Carr does not teach where the first communication entity waits to update a first dictionary with a sent message (e.g., portion of the first communication message) until after as a reply message (e.g., second compressed communication message) arrives from a second communication entity (see exact terminology recited in independent Claims 1, 11 and 17). Instead, Carr teaches where the sending communication entity--LANBRIDGE A--update its header dictionary tables immediately without waiting to make sure the receiving communication entity--LANBRIDGE B--has access to the updated header dictionary tables. This is the opposite of what is claimed in independent Claims 1, 11 and 17. Again, the first communication entity in the claimed invention waits to update a first dictionary with a sent message (e.g., portion of the first communication message) until after a reply message (e.g., second compressed communication message) arrives from a second communication entity (see exact

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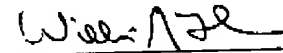
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terminology recited in independent Claims 1, 11 and 17). In view of the foregoing, Applicants respectfully submit that the aforementioned substantial difference between Le and/or Carr and the amended independent Claims 1, 11 and 17 and their associated dependent Claims 4-5, 12-16 and 18-19 is indicative of the patentability of the present invention.

Conclusion

Applicants respectfully submit that all of the stated grounds of rejections have been properly traversed, accommodated, or rendered moot. Accordingly, Applicants respectfully request reconsideration of all outstanding rejections and allowance of pending Claims 1, 4-6 and 11-19.

Respectfully submitted,



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